

**ABSTRACT**

A fast technique utilizes overcomplete DCT representations and performs de-blocking, de-noising and de-blurring by thresholding and transforming the transform coefficients to process images obtained from inexpensive sensors/cameras with low-quality compressed image output. A color balance algorithm is used to compensate for hue shifts. Quality differences between color channels and inter-channel correlations are exploited to significantly reduce computational requirements and yield a high-performance technique for processing such images before printing.